Elmers Corner: Short Wave Listening (SWL)
By Robert Gulley AK3Q

One of the things which makes the radio hobby so pleasurable for me is how easy it is to find interesting things to listen to on whatever radio happens to be handy. From the cheapest AM-only radio to the fanciest software defined radio and beyond, every listening opportunity holds the potential for something enjoyable with even the smallest effort.

As an Amateur radio operator there is no question I love being able to talk to people thousands of miles away on the ham bands, but the love of all things radio began with AM DX and then grew exponentially as I listened to shortwave radio as a young boy. To this day shortwave radio holds a special place in my life—both as a source of good memories and as a "window on the world" not available anywhere else.

For those outside the U.S. they know the value of shortwave radio firsthand—often it is the only source of unfiltered world news available. For those in the United States I fear far fewer people are being exposed to the wonder of SW radio as the Internet and cell phones top the list of favorite technologies with the younger generation. This is not only a great loss for younger generations in general, but a loss for our culture as a whole.

Broadcasts from the BBC, Deutsche Welle, and the Netherlands, just to name a few, were fascinating to me as a child, and they remain so. Wide-ranging perspectives on current events and exposure to diverse music and cultural influences make SW listening invaluable.

Rumor has it that Shortwave radio is dying--don't you believe it! Forgive my adaptation of that old quote: "Reports of Shortwave's demise have been greatly exaggerated!" Shortwave is alive and well (just like Amateur Radio!). Just the other night I was listening to Radio Cairo on a portable SW radio, using only my built-in telescopic whip. I have also heard Romania, Germany, Taiwan, Japan, Russia, China, Italy, and Malaysia, just to name a few. Tune outside the Amateur bands and you will find many, many stations, with numerous ones broadcasting in English. I have to admit though, I listen as much or more to non-English stations as English ones—I find I really enjoy listening to cultural music even when I can't understand the words. The range of music and entertainment on shortwave broadcasts is truly amazing!

Fall and winter are excellent times to acquaint, or re-acquaint yourself with the world of shortwave. Shortwave listening does not have to be complicated of course, but there is plenty of room for experimentation with radios and antennas.

Shortwave is good practice for developing listening skills for Amateur radio
-- propagation conditions, listening skills, and learning to hear folks speak in other languages all improves your amateur radio experience
-- there are always digital modes to listen in on, as well as beacons to hear, utility stations, and multiple bands with varying seasonal propagation characteristics
-- this means you do not have to wait until you have HF privileges to get some real benefit out of the shortwave radio bands
-- and if your radio has SSB options, then you can listen in on hams around the world.
-- BTW, this might just be a good reason to get an amateur radio rig for HF even if you don't have your General license yet
– they also make great shortwave radio rigs!!

Antennas For SWL

One issue of which to be aware involves the sensitivity of portable shortwave receivers. It is very easy to overload them because of their design. They are particularly sensitive to RF signals, and this can be a great advantage when trying to pull out weak or distant signals. The down side to this is the increased sensitivity can cause strong signals to blow out nearby weaker signals, or worse yet, allow strong signals to be heard across multiple bands.

There is such a thing as too much antenna for your radio, and this can only be discovered by trial and error. Listen to a portable with just the built in antenna for a few moments on several different frequencies and note the quality of the signal. Then compare this to the quality of the signals received with a long wire or dipole antenna. You may actually find the need to shorten the antenna.

Getting Started

The most basic antenna is the included whip antenna on the receiver (I am going to assume the use of a portable for beginners here—if you are starting out with a tabletop you probably already have an antenna in mind). Try working stations starting at about the 40 meter band and see what comes in. While built-in antennas are much maligned, a 2-3 foot antenna will pull in more than might be expected. The fact is, with a decent portable there are likely more stations available than there is time to listen to them—and the telescopic whip has one really big advantage: it keeps a portable receiver portable!

Taking The Next Step

Of course there will be days when you want to root out some weak signals and/or more distant stations, and this will require a better antenna. One inexpensive option is to put up a random length wire out the window to a nearby (non-metallic) support. If there are trees around the house there is likely to be one which will make a good mast for a random or long wire. If possible, it is best to tie the wire off with an insulator and then use some rope to run between the insulator and the tree.

When using a wire antenna of any sort always remember to keep it away from other metal structures. If the window frame is metal, rig up something to insulate the wire from the frame to avoid shorting the antenna. And of course, always take the proper precautions to protect yourself, the radio, and your house from lightning damage.

Disconnect any and all antennas from your radios if you suspect the possibility of storms anywhere near your area, and get lightning protection for your antennas as well. Nothing is perfect, especially if the antenna takes a direct hit, but good safety precautions will pay dividends more often than not! Talk with knowledgeable people about what is available for your particular setup, and get in the habit of practicing safety in the radio hobby.

The end of the wire which connects to the radio can be attached several ways depending on the radio. Some radios come with an external antenna jack which likely uses a 1/8″ mini connector; if this is the case just connect the wire to the center post of the connector and plug it in. If the radio doesn't have a wire jack or terminal, wrap one end of the wire around the antenna and it will still be good to go. Some radios come with a wire antenna wrapped on a reel somewhat like fishing line, and these are often able to be connected directly to the built-in antenna with a snap-on clip.

Give it a Try

Shortwave radio is fun, easy to do, and can be as casual as you like. A simple portable radio will pull in a lot, and if you really get into going for the weak stations, a good outdoor antenna and an amateur radio rig will work wonders! When the amateur bands are quiet, there is a whole shortwave radio world just waiting to be discovered, and you will become a better amateur operator for the experience! 73, Robert